

1.	IS: Write a Java / C / C++ / Python program to perform encryption & decryption using the method of Transposition technique OR CC: Create an Application to ‘perform array addition’ in SalesForce using Apex programming language
2.	AI: Implement Greedy search algorithm for selection sort & any two of the following application (Perform for some application): Minimum Spanning Tree Single–Source Shortest Path Problem Job Scheduling Problem Prim’s Minimum Spanning Tree Algorithm Kruskal’s Minimum Spanning Tree Algorithm Disjkstra’s Algorithm
3.	AI: Implement Greedy search algorithm for selection sort & any two of the following application (Perform for some application): Minimum Spanning Tree Single–Source Shortest Path Problem Job Scheduling Problem Prim’s Minimum Spanning Tree Algorithm Kruskal’s Minimum Spanning Tree Algorithm Disjkstra’s Algorithm
4.	AI: Implement depth first search algorithm & breadth first search algorithm, use an undirected graph & develop a recursive algorithm for searching all the vertices of a graph or tree data structure. Print the levels as you traverse.
5.	AI: Implement depth first search algorithm & breadth first search algorithm, use an undirected graph & develop a recursive algorithm for searching all the vertices of a graph or tree data structure. Print the levels as you traverse.
6.	AI: Implement A Star Algorithm for any game search problem
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8.	<p>IS: Implement Dieffi Hellman Key Exchange mechanism</p> <p>OR</p> <p>CC: Create custom application of student database. If age of student is above 18, then student is eligible to vote for election. Fields: <u>First Name</u>, <u>Last Name</u>, <u>DoB</u>, Gender, City, State, Country, Mobile no., <u>Address</u>, <u>PAN no.</u>, <u>Adhar No.</u>, e – mail id. The underlined fields indicates that data entry in it is mandatory.</p>
9.	<p>IS: Write a Java / C / C++ / Python program to implement S–DES algorithm</p> <p>OR</p> <p>CC: Create a custom application for employee database. Display whether the employee is eligible for annual increment or not. Criteria for eligibility is: 1 paper publication & consultancy. Fields: Full Name, e–mail id, employee id, paper publication, consultancy.</p>
10.	<p>IS: Write a Java / C / C++ / Python program to implement S–DES algorithm</p> <p>OR</p> <p>CC: Write an Apex program ‘to calculate area of geometry’ in Salesforce.com using Apex programming language.</p>
11.	<p>AI: Implement any one of the following Expert System:</p> <ul style="list-style-type: none"> Information management Hospitals & medical facilities Help desks management Employee performance evaluation Stock market trading Airline scheduling & cargo schedules
12.	<p>AI: Implement any one of the following Expert System:</p> <ul style="list-style-type: none"> Information management Hospitals & medical facilities Help desks management Employee performance evaluation Stock market trading Airline scheduling & cargo schedules
13.	<p>AI: Implement A Star Algorithm for any game search problem</p>

14.	<p>IS: Write a Java / C / C++ / Python program to implement S–AES algorithm</p> <p>OR</p> <p>CC: Write an Apex program ‘to perform currency conversion’ in Salesforce.com using Apex programming language</p>
15.	<p>CC: Write an Apex program to ‘calculate compound interest & simple interest’ in Salesforce.com using Apex programming language</p> <p>OR</p> <p>IS: Write a Java / C / C++ / Python program to implement RSA algorithm</p>
16.	AI: Develop a smart chatbot for any suitable customer interaction application
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18.	<p>CC: Write an Apex program to ‘perform temperature conversion’ in Salesforce.com using Apex programming language</p> <p>OR</p> <p>IS: Implement Dieffi Hellman Key Exchange mechanism</p>
19.	<p>CC: Write an Apex program ‘to determine whether given number is prime or not’ in Salesforce.com using Apex programming language</p> <p>OR</p> <p>IS: Write a Java / C / C++ / Python program to implement RSA algorithm</p>
20.	AI: Implement a solution for a Constraint Satisfaction Problem using Branch & Bound and Backtracking for graph coloring problem
21.	AI: Implement a solution for a Constraint Satisfaction Problem using Branch & Bound and Backtracking for graph coloring problem

22.	<p>CC: Write an Apex program ‘of Fibonacci series’ in Salesforce.com using Apex programming language</p> <p style="text-align: center;">OR</p> <p>IS: Implement Dieffi Hellman Key Exchange mechanism</p>
23.	<p>CC: Write an Apex program ‘to calculate matrix addition’ in Salesforce.com using Apex programming language</p> <p style="text-align: center;">OR</p> <p>IS: Write a Java / C / C++ / Python program to implement S–AES algorithm</p>
24.	<p>CC: Create a custom application for employee database. Display whether the employee is eligible for annual increment or not. Criteria for eligibility is: 1 paper publication & consultancy. Fields: Full Name, e–mail id, employee id, paper publication, consultancy.</p> <p style="text-align: center;">OR</p> <p>IS: Write a Java / C / C++ / Python program to implement S–DES algorithm</p>
25.	<p>CC: Write an Apex program ‘to develop scientific calculator’ in Salesforce.com using Apex programming language</p> <p style="text-align: center;">OR</p> <p>IS: Write a Java / C / C++ / Python program to perform encryption & decryption using the method of Transposition technique</p>
26.	<p>CC: Write an Apex program ‘to calculate matrix multiplication’ in Salesforce.com using Apex programming language</p> <p style="text-align: center;">OR</p> <p>IS: Write a Java / C / C++ / Python program to perform encryption & decryption using the method of Transposition technique</p>
27.	<p>AI: Implement a system that performs arrangement of some set of objects in a room. Assume that you have only 5 rectangular, 4 square-shaped objects. Use A* approach for placement of the objects in room for efficient space utilisation. Assume suitable heuristic, & dimensions of objects & rooms.</p>
28.	<p>AI: Develop an expert system for library that would recommend book for its project work. Assume suitable data.</p>

29.	<p>AI: Develop an expert system for society maintenance. Discuss the knowledge representation & acquisition. Define the set of rules that would be used. The system should answer the following:</p> <p>a) Why was there no water supply on Monday ?</p> <p>b) Why were there no lights in common passage ?</p>
30.	<p>AI: Implement hill climbing search to solve the following Sudoku puzzle given in figure on white board. Assume heuristic to the sum of the conflicts that are identified.</p>
31.	<p>CC: Create custom application of student database. If age of student is above 18, then student is eligible to vote for election. Fields: <u>First Name</u>, <u>Last Name</u>, <u>DoB</u>, Gender, City, State, Country, Mobile no., <u>Address</u>, <u>PAN no.</u>, <u>Adhar No.</u>, e – mail id. The underlined fields indicates that data entry in it is mandatory.</p> <p style="text-align: center;">OR</p> <p>IS: Write a Java / C / C++ / Python program to implement RSA algorithm</p>